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(54) FILM ROLL WITH INFORMATION CARRIER

- (57) The invention provides an elongated core with an at least partly cylindrical surface, on which a number of layers of film, for example, plastic film, are or can be wound, with the end zones of said core being set up to be carried by bearing devices that form part of a film treatment or processing device, so that the core can be rotated around the axis of said cylindrical surface, and with said core being provided with an information carrier that can be read out remotely by a readout device that forms part of the mentioned installation, for example, a transponder.

The documents attached to this sheet are a copy of the originally filed description with claim(s) and any drawing(s).

Film Roll with Information Carrier

Increasing use is being made of films that are processed mechanically by machines. For example, the film can be designed as a paper web that is suitable for the packaging of objects, whereas plastic films are regularly finding use not only for packaging purposes, but also to form laminates for a wide variety of applications.

It often happens that a roll of film is removed from a processing unit before the complete supply of film is used up. In such a case, a problem can occur in that identification of the corresponding roll of film is lost, so that the roll of film upon subsequent use is positioned incorrectly in the machine, etc. The invention sets itself the task of providing a means to avoid this type of inconvenience of the prior art.

In conjunction with this, the invention provides an elongated core with an at least partly cylindrical surface, on which a number of layers of film, for example, plastic film, are or can be wound, with the end zones of said core being set up to be carried by varying means that form part of a film treatment or processing unit, so that the core can be rotated around the axis of said cylindrical surface, and with said core being provided with an information carrier that can be remotely read out by a readout device that forms part of said unit.

The information carrier can be of any appropriate type. For example, the information carrier can be a bar code or a dot code that can be optically readout remotely by appropriate means.

A specific variant is one in which the information carrier is applied to an end zone of the core. Use of an information carrier on one of the two end zones of the core has the advantage that the orientation of the roll of film is unequivocally established by this. The information carrier in this variant can only be read out in the correct orientation by the readout device. In a situation of incorrect orientation, the readout device does not find the presence of the information carrier and running blocks of the film treatment or processing unit.

An advantageous version is one in which the information carrier contains a transponder. "Transponder", according to the invention, in its simplest variant is understood to mean a resonance circuit, consisting in its simplest form of a coil and a capacitor that resonate at a specific frequency. The readout device can determine this resonance frequency and can determine, by means of it, which roll of film is positioned in the machine.

More complicated forms of transponders are also conceivable, for example, those with several resonance frequencies or systems in which the readout device transfers its excitation energy electromagnetically to the transponder.

A specific variant is one in which the transponder is of the remotely readable type. This version is capable not only of containing information with respect to the type of film, a desired treatment speed, or the like, but can also contain up-to-date information with respect to the remaining amount of film by information exchange between the readout device and the treatment machine.

The invention also concerns a roll of film containing a core according to the specification given to this according to invention, along with a certain amount of film wound on it.

The information carrier, depending on its dimensions, can be embedded in the core or can be fastened to the outside of it. The advantage of embedding is that the information carrier is also protected from mechanical damage during rough handling.

Claims

1. Elongated core with an at least partly cylindrical surface, on which a number of layers of film, for example, plastic film, are or can be wound, with the end zones of said core being set up to be carried by bearing means that form part of a film treatment or processing unit, so that the core can be rotated around the axis of said cylindrical surface, and with said core being provided with an information carrier that can be read out remotely by a readout device that forms part of said unit.

2. Core according to Claim 1, in which the information carrier is applied to an end zone of the core.

3. Core according to Claim 1, in which the information carrier contains a transponder.

4. Core according to Claim 3, in which the transponder is of the remotely readable type.

5. Roll of film, containing a core according to one of the preceding claims and a certain amount of film wound on it.

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